cultural problems. These are as yet too young to have produced any definite results. Further material has been collected for breeding-work, which will be undertaken next summer by Mr. Jacques. The taxonomic work on the *Lotus* spp. has proceeded very satisfactorily, and provides a useful basis for further investigations next year.

Mangolds.—Soft-heart Rot (Mr. Waters); dry-matter values (Mr. Elphick). A wide range of varieties of mangolds have been grown for the research on soft-heart rot which Mr. Waters is initiating. The comparison of the feeding-values of mangolds based on dry-matter content, as opposed to gross weight, which was begun last autumn, has entailed the working-out of the necessary technique. It is hoped that the procedure which Mr. Elphick will adopt during the coming autumn will yield some valuable results.

Top-dressing of Pastures.—(Mr. Scrivener.) The intensive top-dressing of pastures with complete fertilizer followed by periodic dressings of nitrogen has yielded an immense amount of feed. Whether the investment will be proved profitable will be shown when the figures of the stock-carrying capacity are completed at the end of the season. The outstanding result to date is the problem of economically managing the tremendous growth of feed produced. It will be surprising if it is not possible to work out a modification of the complete European system which will prove profitable under New Zealand conditions.

Mr. Scrivener has also in hand a set of experiments on the effect on the soil reaction of the continued use on the same soil of the more common phosphatic fertilizers. These must obviously be continued for some considerable time before the annual analysis will show differences, if any.

College Buildings.

The erection of the temporary teaching laboratory and a temporary dairy research laboratory in positions adjacent to the Batchelar homestead has been completed. Without the former, which was used for chemistry, botany, and bacteriology, it would have been impossible to carry on during the past academic year.

The dairy factory has been completed, thus setting up a very big landmark in dairy science at this College.

The McHardy house has been cut in half and the two sections moved to their new sites, the one to function as the administrative building and the other as the Principal's residence. The former will be used for lecture and laboratory purposes pending the completion of the main building. The alterations to these buildings should be completed shortly.

The original washhouse and fruit-store on the McHardy site has been moved to a convenient site and converted into two studies and a botany and field husbandry laboratory.

The old garage adjacent to the Batchelar homestead has been turned into a temporary chemistry laboratory for soil and wool research.

The Farm.

The development of the farm has progressed steadily. A new wood-shed, yards, and dip have been erected, and their design has given every satisfaction. They have proved of considerable interest to visiting sheep-farmers, and have met with general approval. The area devoted to pigs has been considerably extended, the portable houses now numbering thirty-six and the runs thirty-eight. A small feed-store has been erected, and all necessary equipment has been provided. A small blacksmith's shop has been built, and the old cattle-barn has been converted into an implement-shed. A small portable silo of experimental design has been built. It is hoped that it may meet the peculiar demands of the New Zealand dairymen in the matter of a silo.

The permanent subdivision of the main flats has been completed, and much of the major division of the Terrace has been carried out. All fences on the Pahiatua Block have been made good, it being necessary to erect a new fence on our boundary with Mrs. Baker. The main farm road has been extended in a straight line to the Tiritea Stream and thence up the bank to the edge of the Terrace.

A further 35 acres have been mole-drained, making a total of 105 acres so treated. A total of 451 acres was top-dressed, with very beneficial results. Where the manure-drill could not be used the work was carried out with the use of the Howell hand distributor, which proved very satisfactory. 35 acres of old pasture infested with rushes were cleared of stumps and broken up for cropping and for eventually laying down in good grass.

The total area under crops was 110 acres, and the numbers of stock wintered were as follows: Dairy cattle, 129; bullocks, 80; sheep, 1,191; pigs, 25; horses, 7. Crops have been very satisfactory on the whole, and the stock came through the winter in excellent condition. No serious outbreaks of disease amongst the animals have been experienced.

Donations.

In the course of the year a number of people have very generously made gifts to the College, as follows:—

Sir James G. Wilson—*Transactions of the Highland and Agricultural Society of Scotland* (29 vols.); *Journal of the Royal Agricultural Society of England* (3 vols.).

W. D. B. Murray, Esq.—Lands and Survey Reports of New Zealand, 1877 to 1927.

A. R. Fannin, Esq.—*New Zealand Farmer*, 1890 to 1928.

Southdown Sheep Society of New Zealand—Flock-book of the Society (10 vols.).

Edwin A. Bell and Co.—One Jensen's mole-drain plough.

E. J. Kelly and Co. and the Fletcher Construction Co. (in conjunction)—One concrete-mixer.